

Abstract of the Disclosure

There are provided methods of purifying a material, comprising melting solid material to form liquefied material, directionally solidifying a portion of the liquefied material; and removing a liquid remainder from the purified solidified material. Preferably, the purified solidified material is melted to form re-liquefied purified material, and re-liquefied purified material is removed. Preferably, the material is positioned in a container as it is being purified. The method is particularly useful for purifying elemental material, e.g., semiconductor material such as silicon and/or germanium, such as recycle scrap silicon and/or metallurgical grade silicon. There are also provided systems for carrying out such methods.

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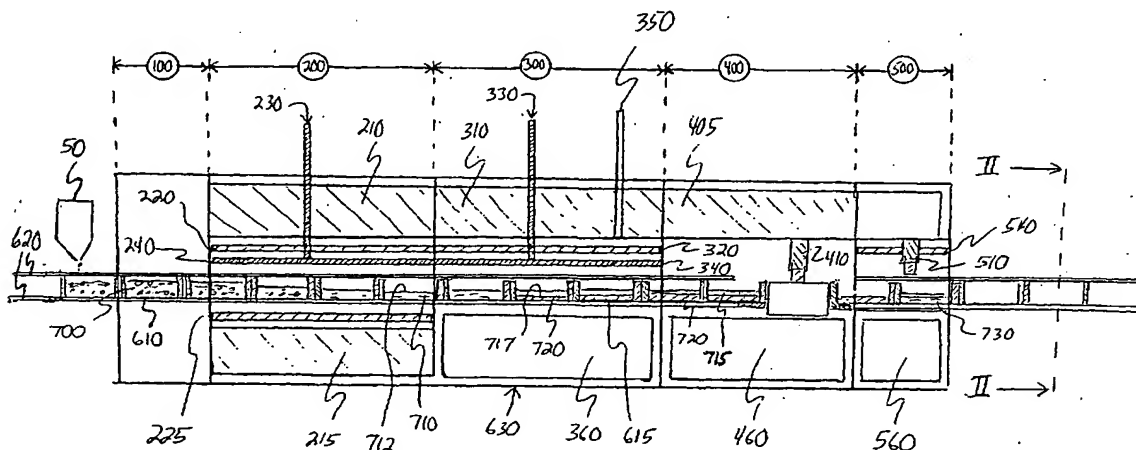
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(57) **Abstract:** There are provided methods of purifying a material, comprising melting solid material to form liquefied material, directionally solidifying a portion of the liquefied material; and removing a liquid remainder from the purified solidified material. Preferably, the purified solidified material is melted to form re-liquefied purified material, and re-liquefied purified material is removed. Preferably, the material is positioned in a container as it is being purified. The method is particularly useful for purifying elemental material, e.g., semiconductor material such as silicon and/or germanium, such as recycle scrap silicon and/or metallurgical grade silicon. There are also provided systems for carrying out such methods.

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